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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,725	02/20/2004	Koichiro Nagata	Q79639	3628

23373 7590 07/24/2007

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EXAMINER	
DESCHERE, ANDREW M	

ART UNIT	PAPER NUMBER
2836	

MAIL DATE	DELIVERY MODE
07/24/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/781,725	NAGATA, KOICHIRO	
	Examiner	Art Unit	
	Andrew M. Deschere	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 8-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment filed 4 April 2007 has amended claims 1 and 8, and presented new claims 9-23. Examiner's rejection of claims 7 and 8 under 35 USC 112 are withdrawn. Independent claim 1 now recites language that the optical limitation means limits light when the display means is in use.

Response to Arguments

Applicant's arguments with respect to claims 1 and 3-6 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

Claims 8 objected to because of the following informalities: the claim is unclear as to what elements are "disposed in a moving object". For purposes of examination, the Examiner assumes the lighting control apparatus may be in a movable object. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-6, 8, 11, 13, 15-19, and 22 rejected under 35 U.S.C. 103(a) as being unpatentable over Shin (US 5,078,476) in view of Beard (US 5,747,938).

Shin discloses a backlight controller for a liquid crystal display [Figure 2]. A use detection means (pulse generating member 1) puts out a use detection signal (pulse signal) when a display means is placed in a use state (there is a video signal 7). An optical limitation means (the backlight power controller) limits light emitted out of a lighting means (backlight 2) incident upon a screen of the display means (the liquid crystal display) according to the use detection signal. [column 1, lines 37-53; column 3, lines 5-18; column 4, lines 15-33 and 57-63].

However, Shin discloses that the optical limitation means limits light emitted out of the lighting means only when the use detection signal indicates that the display in not in use. Beard discloses an automatic controller for the backlight of a liquid crystal display [Figure 1; column 2, lines 30-32]. The control circuitry limits the light emitted out of a lighting means (electroluminescent panel 10) incident upon a screen of the display means (the liquid crystal display) while the display means is in use (the light output of the electroluminescent panel is adjusted based upon ambient light levels) [column 2, line 59 to column 3, line 15].

A combination of Shin and Beard would provide a controller for the backlight of a liquid crystal display that limits the output of the backlight according to ambient light levels, when a video signal is detected. It would have been obvious to one of ordinary skill in the art at the time of the invention to make such a combination in order to limit power consumption by turning off the lighting means when the display means is not in use (Shin; column 1, lines 28-34) and limiting the lighting means's output according to the intensity of the ambient light (Beard; column 3, lines 16-28).

With regard to claims 3 and 15, Shin discusses as prior art backlight apparatuses that turn on with no regard to the existence of a video signal. As such, when an LCD TV is turned on, the pulse generating member will turn on the backlight.

With regard to claims 4 and 16, the use detection signal (pulse signal) of Shin is indicative of a video signal [column 1, lines 37-53].

With regard to claims 5, 6, 17, and 18 in the combination of Shin and Beard, the optical limitation means taught by Beard (responsive to ambient light levels) will only be active while the use detection signal of Shin indicates that a video signal is present.

With regard to claims 8 and 19, the invention of Beard may be implemented in a portable (i.e., movable) piece of equipment [column 1, lines 20-38]. The teachings of Shin would further enhance battery life for a portable electronic device with a backlit liquid crystal display.

With regard to claim 11 and 22, a switching device in Shin, transistor TR24, is responsive to the presence of a video signal input [column 3, lines 5-15; column 4, lines 52-56].

Claims 2 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Shin and Beard in view of Kurzman (US 5,057,977).

The combination of Shin and Beard above teaches a backlight controller, but there is no suggestion that the backlight may turn on when the "display means is pulled out form an accommodating means". Kurzman teaches a pull-out lighted display such that a light source associated with a display illuminates when the display is pulled out of a housing. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Shin, Beard, and Kurzman to further power consumption by preventing backlighting

means if either a display has no video input or is not placed in a viewable position, while limiting the intensity of the backlight based upon ambient light conditions.

Claims 9,10, 20, and 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Shin and Beard in view of Weindorf (US 6,396,217).

The combination of Shin and Beard above teaches a backlight controller, but there is no suggestion to use a light external to the display, nor in a vehicle. Weindorf teaches a brightness error reduction for a lighted display. Although Weindorf is primarily drawn to a backlight display device for use in a vehicle dashboard, navigation system, or control panel, there is a suggestion that a frontlit display may be implemented [column 4, lines 9-51]. Since a vehicle draws from a limited power supply (a battery), it would have been obvious to one of ordinary skill in the art at the time of the invention to use the backlight controller taught by a combination of Shin and Beard to limit power consumption of the lighted displays of Weindorf.

Claims 12 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Shin and Beard in view of Hyman (US 5,637,093).

The combination of Shin and Beard above teaches a backlight controller, but there is no suggestion to turn on the light when the display is not in use. Hyman discloses a selective controller for a backlight. A feature of Hymen is a means for generating an alarm in response to an alarm condition; if an alarm message is generated, a backlight will be activated [column 1, lines 26-42; column 12, lines 23-30]. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate this aspect of Hymen in the combination of Shin and Beard to allow the backlight controller to inform the user of an alarm condition even if the liquid crystal display is not currently in use.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew M. Deschere whose telephone number is (571) 272-8391. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (571) 272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMD

7/19/07

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